

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (Currently Amended) A printing apparatus comprising:

storage means for storing document data received via a network and described in a predetermined structured description language;

analysis means for analyzing the document data stored by said storage means and recognizing font sizes contained in the document data, and for recognizing characters contained in the document data to which the font sizes are applied;

display means for displaying a first font size to be selected from among a group consisting of (i) a smallest size, (ii) a most frequently used size and (iii) all sizes on an operation panel of said printing apparatus;

instruction input means for, ~~when providing a print instruction, entering, via an operation panel of said printing apparatus, [[a]] selecting the~~ first font size ~~selected~~ from among ~~[[a]] the~~ smallest size, ~~[[a]] the~~ most frequently used size and ~~the~~ all sizes displayed on the operation panel by said display means, and entering a second font size to be used for formatting the document data for printing on at least one print page, the second font size being different from the first font size;

discrimination means for discriminating whether the first font size ~~entered~~ selected by said instruction input means indicates the smallest size, the most frequently used size

or the all sizes;

scaling means for scaling all the characters contained in the document data (a) such that a smallest font size in the document data becomes equal to the second font size entered by said instruction input means, if said discrimination means discriminates that the first font size indicates the smallest size, (b) such that a most frequently used font size in the document data becomes equal to the entered second font size, if said discrimination means discriminates that the first font size indicates the most frequently used size, and (c) such that all font sizes in the document become equal to the entered second font size, if said discrimination means discriminates that the first font size indicates the all sizes;

image forming means for executing an image forming process such that data representing the character recognized by said analysis means is outputted for printing on the at least one print page on which contents of the document data are laid out in accordance with the scaling by said scaling means; and

printing means for printing data based on print data formed in the image forming process executed by said image forming means,

wherein the document data does not include a concept of page.

Claim 2. (Previously Presented) An apparatus according to claim 1, wherein:

said analysis means calculates a magnification change rate utilizing the font size contained in the document data, and information relating to the second font size entered by said instruction input means; and

said image forming means executes the image forming process by changing the

magnification of the character by the magnification change rate so as to output for printing on the at least one print page data representing the character at the second font size.

Claim 3. (Previously Presented) An apparatus according to claim 1, wherein:
the document data include information for designating the first font size for a specified character recognizable by said analysis means; and

said image forming means executes the image forming process such that data representing the specified character for which the first font size is designated, is outputted for printing on the at least one print page at the second font size entered by said instruction input means regardless of the information designating the first font size.

Claim 4. (Previously Presented) An apparatus according to claim 1, wherein:
the second font size is designatable by the document data;
said analysis means calculates a magnification change rate utilizing a base font size and the second font size entered by said instruction input means; and

said image forming means executes the image forming process by applying the magnification change rate to the entire character information contained in the document data in such a manner that data representing a character, to which the base font size is applied, is outputted for printing on the at least one print page at the second font size entered by said instruction input means.

Claim 5. (Previously Presented) An apparatus according to claim 1, wherein:

said analysis means recognizes the most frequent font size occurring in the document data; and

said image forming means executes the image forming process such that data representing a character, to which the most frequent font size recognized by said analysis means is applied, is outputted for printing on the at least one print page at the second font size entered by said instruction input means.

Claim 6. (Previously Presented) An apparatus according to claim 1, wherein:

said analysis means recognizes a minimum font size in the document data; and

said image forming means executes the image forming process such that data representing character information formatted for printing on the at least one print page is outputted for printing on the at least one print page a font size at least equal to the second font size entered by said instruction input means when said analysis means recognizes the minimum font size.

Claim 7. (Previously Presented) An apparatus according to claim 1, wherein:

the document data includes at least object data representing an image or a table and the character;

said analysis means detects the size of an image represented by the object data; and

said image forming means executes an image forming process such that data representing the image or the table formatted to fit and be printed on the at least one print page is

outputted after said analysis means detects the size of the image and that data representing the character contained in the document data is outputting for printing on the at least one print page at the second font size entered by said instruction input means.

Claim 8. (Previously Presented) An apparatus according to claim 1, wherein:
the document data includes at least object data representing an image or a table
and the character;

said analysis means detects the size of the image represented by the object data;
and

said image forming means executes the image forming process such that the
image, when printed on the at least one print page, is subjected to a magnification change
according to the width of the least one print page on which the image is to be printed and that
data representing the character contained in the document data is outputted for printing on the at
least one print page at the second font size entered by said instruction input means.

Claim 9. (Previously Presented) An apparatus according to claim 1, wherein
said apparatus communicates with an arbitrary server apparatus for receiving and processing the
document data.

Claim 10. (Previously Presented) An apparatus according to claim 1, further
comprising selection means for selecting a method of formatting the document data to be printed
on the at least one print page according to an instruction of the user, wherein a method for

calculating a magnification change rate changing the magnification of the character is determined according to the result of the selection by said selection means.

Claim 11. (Currently Amended) An apparatus according to claim 1, further comprising a printing unit configured to print the document in accordance with the image forming process executed by said image forming means.

Claim 12. (Original) An apparatus according to claim 1, wherein said apparatus is a printer.

Claim 13. (Currently Amended) A printing method comprising:
a storage step of storing document data received via a network and described in a predetermined structured description language;

an analysis step of analyzing the document data stored in said storage step and recognizing font sizes contained in the document data, and for recognizing characters in the document data to which the font sizes are applied;

a display step of displaying a first font size to be selected from among a group consisting of (i) a smallest size, (ii) a most frequently used size and (iii) all sizes on an operation panel of a printing apparatus;

an instruction input step of; ~~when providing a print instruction, entering, via an operation panel of said printing apparatus, [[a]] selecting the first font size selected from among [[a]] the smallest size, [[a]] the most frequently used size and the all sizes displayed on the~~

operation panel in said display step, and entering a second font size to be used for formatting the document data for printing on at least one print page, the second font size being different from the first font size;

a discrimination step of discriminating whether the first font size entered selected in said instruction input step indicates the smallest size, the most frequently used size or the all sizes;

a scaling step of scaling all the characters contained in the document data (a) such that a smallest font size in the document data becomes equal to the second font size entered in said instruction input step, if said discrimination step discriminates that the first font size indicates the smallest size, (b) such that a most frequently used font size in the document data becomes equal to the entered second font size, if said discrimination step discriminates that the first font size indicates the most frequently used size, and (c) such that all font sizes in the document become equal to the entered second font size, if said discrimination step discriminates that the first font size indicates the all sizes;

an image forming step of executing an image forming process such that data representing the character recognized by said analysis step is outputted for printing on the at least one print page on which contents of the document data are laid out in accordance with the scaling by said scaling step; and

a printing step of printing data based on print data formed in the image forming process executed in said image forming step,

wherein the document data does not include a concept of page.

Claim 14. (Previously Presented) A method according to claim 13, wherein:

said analysis step calculates a magnification change rate utilizing the first font size indicated by specified character information contained in the document data, and information relating to the second font size entered by said instruction input step; and

said image forming step executes an image forming process such that data representing a character is outputted for printing on the at least one physical sheet at a font size changed by the magnification change rate calculated in said analysis step.

Claim 15. (Previously Presented) A method according to claim 13, wherein:

the document data include information for designating the first font size for a specified character recognized by said analysis step; and

said image forming step executes the image forming process such that data representing the character for which the first font size is designated, is outputted for printing on the at least one print page at the second font size entered by said instruction input step regardless of the information designating the first font size.

Claim 16. (Previously Presented) A method according to claim 13, wherein:

the second font size is designatable by the document data;

said analysis step calculates a magnification change rate utilizing a base font size and the second font size entered by said instruction input step; and

said image forming step is executed by applying the magnification change rate to the entire character information contained in the document data such that data representing a

character, to which the base font size is applied, is outputted for printing on the at least one print page at the second font size entered by said instruction input step.

Claim 17. (Previously Presented) A method according to claim 13, wherein:
said analysis step recognizes a minimum font size in the document data; and
said image forming step executes the image forming process such that data representing character information formatted for printing on the at least one print page is outputted for printing on the at least one print page at a font size at least equal to the second font size entered by said instruction input step when said analysis step recognizes the minimum font size.

Claim 18. (Previously Presented) A method according to claim 13, wherein:
the document data includes at least object data representing an image or a table and the character;

said analysis step detects the size of the image represented by the object data;
and

said image forming step executes the image forming process such that data representing the image or the table formatted to fit and be printed on the least one print page is outputted after said analysis step detects the size of the image, and that data representing the character contained in the document data is outputted for printing on the at least one print page at the second font size entered by said instruction input step.

Claim 19. (Previously Presented) A method according to claim 13, wherein:
the document data includes at least object data representing an image or a table
and the character;

said analysis step detects the size of an image represented by the object data;
and

said image forming step executes an image forming process such that the
image, when printed on the at least one print page, is subjected to a magnification change
according to the width of the at least one print page on which the image is to be printed and that
data representing the character contained in the document data is outputted for printing on the at
least one print page at the second font size entered by said instruction input step.

Claim 20. (Previously Presented) A method according to claim 13, further
comprising an acquisition step of communicating with an arbitrary server apparatus for receiving
and processing the document data.

Claim 21. (Previously Presented) A method according to claim 13, further
comprising a selection step of selecting a method of formatting the document data to be printed
on the print page according to an instruction of the user, wherein a calculation method for
calculating a magnification change rate changing the magnification of the character is determined
according to the result of the selection by said selection step.

Claim 22. (Previously Presented) A method according to claim 13, further

comprising a printing step of printing the document in accordance with the image forming process executed in said image forming step.

Claim 23. (Original) A method according to claim 13, wherein said method is used in a printer.

Claim 24. (Currently Amended) A computer readable memory medium storing a program for causing a computer to execute a printing method, comprising:

a storage step of storing document data received via a network and described in a predetermined structured description language;

an analysis step of analyzing the document data stored in said storage step and recognizing font sizes contained in the document data, and recognizing ~~[[the]]~~ characters contained in the document data to which the font sizes are applied;

a display step of displaying a first font size to be selected from among a group consisting of (i) a smallest size, (ii) a most frequently used size and (iii) all sizes on an operation panel of a printing apparatus;

an instruction input step of, ~~when providing a print instruction, entering, via an operation panel of said printing apparatus, [[a]]~~ selecting the first font size selected from among [[a]] the smallest size, [[a]] the most frequently used size and the all sizes displayed on the operation panel in said display step, and entering a second font size to be used for formatting the document data for printing on at least one print page, the second font size being different from the first font size;

a discrimination step of discriminating whether the first font size **entered** selected in said instruction input step indicates the smallest size, the most frequently used size or the all sizes;

a scaling step of scaling all the characters contained in the document data (a) such that a smallest font size in the document data becomes equal to the second font size entered in said instruction input step, if said discrimination step discriminates that the first font size indicates the smallest size, (b) such that a most frequently used font size in the document data becomes equal to the entered second font size, if said discrimination step discriminates that the first font size indicates the most frequently used size, and (c) such that all font sizes in the document become equal to the entered second font size, if said discrimination step discriminates that the first font size indicates the all sizes;

an image forming step of executing an image forming process such that data representing the character recognized by said analysis step is outputted for printing on the at least one print page on which contents of the document data are laid out in accordance with the scaling in said scaling step; and

a printing step of printing data based on print data formed in the image forming process executed in said image forming step,

wherein the document data does not include a concept of page.

Claims 25 - 37. (Canceled).

Claim 38. (Currently Amended) ~~An image processing~~ method according to

claim 19, further comprising a format process step for scaling each character in the document to a base character size when data representing the document is outputted for printing on the at least one print page in said image forming step, based on a font size designated in print set information and the second font size inputted by said instruction input step.

Claims 39 - 48. (Canceled)